

EXHIBIT C

Investor Alerts and Bulletins

Updated Investor Alert: Fraudulent Stock Promotions

March 29, 2016

The SEC's Office of Investor Education and Advocacy is issuing this updated Investor Alert to warn investors about fraudsters who promote a stock to drive up the stock price and then sell their own shares at the inflated price, making money at investors' expense.



Fraudsters who conduct stock promotions are often paid promoters or company insiders who stand to gain by selling their shares after creating a buying frenzy and pumping up the stock price. The promoters or insiders make profits for themselves while creating losses for unsuspecting investors.

The SEC has brought charges against promoters for not disclosing the compensation they were receiving for promoting a stock. In [SEC v. Smith](#), the SEC alleged that the defendants fraudulently promoted a data storage company through emails, online blogs, articles, and other media, without fully disclosing their compensation or that they would be paid more if they increased the company's share price. According to the SEC's complaint, the defendants made false and misleading statements to try to increase the trading volume and share price of the company's stock, including falsely naming well-known companies as customers and making highly misleading projections about investment returns.

Fraudsters may promote a stock in seemingly independent and unbiased sources including:

- **Social Media:** Fraudsters may use social media to promote a stock anonymously or while pretending to be someone else. Read [Updated Investor Alert: Social Media and Investing -- Stock Rumors](#).
- **Investment Newsletters:** In some cases, an investment newsletter may promote a particular stock because the newsletter publisher has been paid to do so. Read [Investor Alert: Investment Newsletters Used as Tools for Fraud](#).
- **Online Advertisements:** Fraudsters may purchase pop-up ads or banner ads that are targeted to a particular group based on demographics or interests. Ads may be fraudulent even if they appear on legitimate websites, including on the online financial pages of news organizations.
- **Email:** Email spam may indicate an email scam. Read [Investor Alert: Don't Trade on Pump-And-Dump Stock Emails](#).
- **Internet Chat Rooms:** Fraudsters often use aliases in Internet chat rooms to hide their identities and post messages urging investors to buy stock in microcap companies based on supposedly "inside" information about impending developments at the companies.

- **Direct Mail:** Fraudsters may send you high-end glossy mailers promoting certain stocks.

Microcap stocks (low-priced stocks issued by the smallest of companies), including **penny stocks** (the very lowest priced stocks), are more susceptible to stock price **manipulation**. Publicly-available information about microcap companies often is scarce, making it easier for fraudsters to spread false information. In addition, it is often easier for fraudsters to manipulate the price of microcap stocks because microcap stocks historically have been less liquid than the stock of larger companies (“liquid” investments are those that can be sold easily). Be especially cautious regarding stock promotions if there are any warning signs of microcap fraud including:

- The SEC suspended public trading of the security or other securities promoted by the same promoter. Click [here](#) for a list of recent SEC trading suspensions.
- Increase in stock price or trading volume linked to promotional activity. Some microcap stocks are quoted on OTC systems including [OTC Bulletin Board](#) and [OTC Markets](#).
- Press releases or promotional activity announcing events that ultimately do not happen (e.g., contracts expected to produce revenue that never get finalized).
- No real business operations (little or no assets; minimal revenues; false press releases).
- Company issues a lot of shares without a corresponding increase in the company’s assets.
- Frequent change in company name or type of business.

Read recent [reports](#) that the company has filed with the SEC. For more information about investing in microcap stocks, read [Microcap Stock: A Guide for Investors](#).

When considering any potential investment, be aware of these red flags of investment fraud:

- **Aggressive stock promotion.** Exercise extreme caution if there appears to be greater promotion of the company’s stock than of the company’s products or services.
- **Guaranteed high investment returns.** Be highly suspicious if the promoter promises you a high rate of return on your investment.
- **Pressure to buy RIGHT NOW.** Be wary if the promoter pitches the investment as a “limited time only” opportunity, especially if the promoter claims to base the recommendation on “inside” or confidential information.
- **Unsolicited stock recommendations.** Be skeptical regarding information provided in new posts on your wall, tweets, direct messages, emails, or other communications you did not ask for that promote a particular stock (even if the sender appears connected to someone you know).

Even if a promoter makes specific disclosures about being compensated for promoting a stock, be aware that fraudsters may make such disclosures to create the false appearance that the promotion is legitimate. Additionally, the disclosures may not reveal that the underlying source of the compensation is a company insider or affiliate.

Do not take comfort because the promoter encourages you to buy the stock through your own brokerage account. Even if you do not give the promoter any money directly, your stock purchases may enable the organizers of the promotion to offload their otherwise valueless shares. The promoters may have gotten their shares privately at a very low cost with the intention to profit from their promotion rather than to invest in the company.

Before investing in a company based on a stock promotion, carefully research the investment (read [Ask Questions](#)) and keep in mind that the promoter may be trying to get you to buy into the hype in order to sell his or her own shares at your expense.

Additional Resources

Investor Alert: [Zika Crisis May Give Rise to Investment Scams](#)

Investor Alert: [Investment Scams Involving Ebola-Related Companies](#)

Investor Alert: [Marijuana-Related Investments](#)

Report [possible securities fraud](#) to the SEC. Report a [problem](#) to the SEC. Ask the SEC a [question](#). Visit [Investor.gov](#), the SEC's website for individual investors.

Receive Investor Alerts and Bulletins from OIEA by [email](#) or [RSS feed](#). Follow OIEA on [Twitter](#) @SEC_Investor_Ed. Like OIEA on [Facebook](#) at facebook.com/secinvestoreducation.

The Office of Investor Education and Advocacy has provided this information as a service to investors. It is neither a legal interpretation nor a statement of SEC policy. If you have questions concerning the meaning or application of a particular law or rule, please consult with an attorney who specializes in securities law.

Modified: Feb. 6, 2017

EXHIBIT D

Seeking Alpha 

Short Ideas | Industrial | Editors' Picks

Vuzix: Far Worse Than Anyone Had Imagined

Mar. 20, 2018 9:45 AM ET 210 comments | 3 Likes

by Richard Pear on

Summary

- Marketing docs from IRTH Communications reveal a massive promotion campaign on Vuzix which they describe "media placements" as "advertisements" in mainstream media.
- More than 30 of the media outlets specifically named by IRTH published effusive reviews of Vuzix's Blade all based very visibly upon its "Alexa enabled" features
- The Blade appears to be a sham NONE of the journalists could get the critical Alexa feature to function, yet precisely ALL of them aggressively touted "Alexa" in reviews.
- Articles appeared as "news" with no disclosure of payment. Vuzix aggressively spread its own "news" via website and social media, sharply inflating stock price to raise \$30 million.
- Numerous promoters behind Vuzix and tied to Vuzix head of IR have been tied to an extensive string of imploded stock frauds Recent SEC indictments and investigations.

Note: This report is the opinion of the author. The author is short VUZI. The author may conduct new or additional transactions in any various securities mentioned in this report or any other related securities at any time, including within the next 72 hours.

The text included below is a summary of several key points. Full details can be found in the embedded pdf below which is also posted at MoxReports.com That pdf report was first published on Friday, March 16, 2018.

I have deliberately included links to key exhibits and videos. To get an actual understanding of just how brazen the issues are with Vuzix, it is important to actually open and view these exhibits and videos. I strongly encourage readers to not skip this important step.

Key Statistics

<https://seekingalpha.com/article/4157779-vuzix-far-worse-anyone-imagined>

Name: Vuzix Corp. (VUZI)

Market Cap: \$208 Million

Share price: \$7.45

Cash per share \$1.33

Revenues: \$0.5 million per quarter

(Negative gross margins)

Summary

Vuzix Corp. is a stock promotion which shows blatant signs of fraud. The setup here is nearly identical to the dozens of other stock frauds or promotions I have exposed here at Seeking Alpha over the past few years.

Since the 1990s, Vuzix company has continuously re-spun the same hyped up story about its "augmented reality" technology. Explosive financial success, we have told, is always expected just around the corner.

Vuzix has been heavily promoted by individuals and firms allegedly involved in numerous imploded stock frauds that were notable for being unusually blatant and brazen. Vuzix's Head of IR has concealed his extensive and direct ties to people such as Mark Gomes. We have recently begun seeing the SEC shut down such activities.

(Editor's Note 3/21/2018: After publication of this article, Mark Gomes wrote to Seeking Alpha to say that his case with the SEC has settled without admission of wrongdoing. We removed mentions of fraud from characterizations of Mr. Gomes as a result. Mr. Gomes further said, "I am categorically denying all promotional activity associated with Vuzix. I did indeed (write) a bullish article about the company, but later clarified based on further investigation. I have provided evidence to this effect. To be 100% clear — my bullish article was NOT part of any promotional ties or activity with Vuzix (or any other entity) whatsoever. I am 100% and categorically denying EVER participating in any promotional activity regarding Vuzix, IRTN, OR ANY OTHER entity for that matter. I have never (accepted) compensation of any sort (monetary or otherwise) nor an exchange of favors regarding any security, ever.")

In January, a media blitzkrieg resulted in at least 50 glowing articles aggressively touting Vuzix in some of the best known media outlets in the US. The content of these articles was all nearly identical and they were all spaced just days apart over a several week

period in January 2018. The result was that Vuzix's share price doubled vs. recent lows,

and Vuzix immediately raised \$30 million from an equity offering near all-time highs. In late 2017, Vuzix was out of cash. Without the aggressive promotion, Vuzix would never have been able to raise the money it needed and it would have been bust by February. As of that prospectus, Vuzix had just \$1.33 per share in cash.

Each of the promotional mainstream articles effusively touted the game-changing potential of the Blade, based on just a few supposed "game-changing features". This specifically included an overwhelming emphasis on the Blade's incorporation of Amazon's "Alexa" technology. Yet when reviewing the product in person, precisely ZERO of these journalists was able to get those actual high-tech features to work.

Question: why would dozens of mainstream media outlets ALL begin abruptly and simultaneously touting these high tech features even when precisely NONE of them could actually get the features to work?

Well... In marketing documents from IRTH which came out later, IRTH claims direct responsibility for these articles and even describes them as explicitly "**advertisements**". However, in the media, each of these articles appeared as independent "news" or analysis with no disclosure of influence by IRTH or payment for the ads.

(Note: The marketing document was entitled "**Vuzix: Strategic Media Wins Sourced by IRTH Communications January 1 15, 2018**". The document includes the logos of both Vuzix and IRTH. Additional pages from this presentation are included in my full report below)





In fact, I will show every indication that the Vuzix Blade which was so lavishly praised by the media is in fact little more than a sham device. The Blade was basically just a prop with very limited functionality which could be used in photo shoots which were entirely staged.

I will also show that the "advertisements" which appeared as "news" were nothing little more than gratuitous product plugs which completely ignored the lack of any meaningful functionality.

Very Important: The Blade is definitely **NOT** an utterly functionless "brick". The device can be seen to sport several very low tech demo functions which were widely photographed by the journalists. But there is quite visibly nothing even remotely "high tech" about any of these features.

In fact, the Vuzix Blade functions much like the low priced "spy glasses" made popular 10-12 years ago. Even back then these could be bought for less than \$200. Now they sell for around \$60 and include 3 hours of ultra-high def recording time and 128 hours of standby. An example from Amazon is shown below. Just like those old "spy glasses", the Blade's visible functions include the ability to take and store video and photos by pushing a button on the frame. And now with advances in low priced micro-display technology, the Blade allows the wearer to then view and scroll through this content by looking into the glasses themselves.



The Blade includes icons for several "apps" for common uses such as weather and mapping. But so far, none of the journalists was able to actually use these apps for their intended purpose. Instead, they have just observed the inclusion of an icon that says "maps" or "weather" along with static pictures.

The excuse that Vuzix offered to the journalists for why the device didn't work was that the Wi-Fi was not working properly. Somehow precisely NONE of the dozens of journalists who positively reviewed the device chose to question the notion that there was no Wi-Fi at the biggest three day tech conference in America.

Likewise, no one has been able to publicly test the Blade because Vuzix has said that the device is already "sold out".

Meanwhile, Vuzix has made it a point to aggressively tout a \$5 million "purchase agreement" with Toshiba. In fact, this agreement is really just a manufacturing agreement whereby Vuzix is the one paying \$5 million to Toshiba. The wording states clearly that Toshiba will "fulfill the initial purchase order received by Toshiba".

(Editor's Note: After publication, Vuzix representative Matt Margolis contacted Seeking Alpha to share this link to a Vuzix 8-K that describes the Toshiba agreement: "Pursuant to the supply agreement, the Company agreed to sell such product exclusively to Toshiba for a period of up to 12 months, subject to Toshiba's submitting a minimum of \$5,000,000 of purchase orders. The product will be co-branded as a Toshiba product, powered by Vuzix and is expected to be sold on a global basis by Toshiba by their Toshiba Client Solutions group, which will bundle the smart glasses unit with a specially designed mobile edge computing system that they principally developed for this program. The supply agreement has a three year term, subject to earlier termination under certain conditions set forth therein.")

March 2018



COMPANY / TICKER:	Vuzix (VUZI)
MARKET CAP:	\$240 MILLION
CURRENT SHARE PRICE:	\$7.45
REVENUE	\$0.5m per quarter (negative gross margins)
CASH / SHARE	\$1.33 cash /share
EXPECTED SHARE PRICE:	<i>Expected to be delisted. Less than \$0.50. post delisting.</i>

- Vuzix recently used an undisclosed stock promotion involving dozens of mainstream media outlets to artificially inflate the share price and volume, and then raise \$30 million
- Photos of leaked documents from IRT Communications show IRT bragging to potential clients that it was responsible for more than 30 articles from mainstream media outlets which all simultaneously erupted in connection with Margolis' "Alexa ruse". These specific IRT sponsored articles were conspicuous in that they offered effusive praise for Vuzix but appeared as standard news on dozens of mainstream sites
- The information contained in the articles and product reviews was flat out wrong, but was then repeatedly re-broadcast by Vuzix (esp. Margolis) in order to inflate the stock. Margolis made heavy use of social media, adding the \$VUZI ticker next to the sponsored articles
- Vuzix's "Blade" is little more than a low tech mock-up which serves as a prop for journalists to conduct sham reviews. When these journalists "reviewed" the product at CES, neither the Alexa feature nor the browser were functioning – not for any of the journalists. Yet these same journalists then widely touted the device in their mainstream bylines, overwhelmingly on the basis of the Alexa features that actually don't exist !
- Matt Margolis conceals his past employment by multiple fraudsters who had also been behind undisclosed promotions on Vuzix for years. Margolis' former employer Mark Gomes was shut down under SEC fraud proceedings in September just after running his latest promotion on Vuzix
- With a separate promoter, Margolis was actively promoting Centrex and other IRT clients without disclosing that he was being paid via IRT Communications. Centrex subsequently collapsed.
- Vuzix's recent "Alexa ruse" was actually a recycled ploy that Margolis had used on Vuzix in 2016, while he was still employed by outside promoters. Just like with the "GoPro ruse" in 2016, adding Alexa functionality costs nothing and can be done in just one hour by downloading a simple developer kit. Margolis then uses this non-event as a pretense to run a stock promotion
- Over the past 11 months, we have seen a very visible acceleration in SEC enforcement against this exact type of fraud. The recent undisclosed IRT promotions were now too blatant and were then used for an immediate \$30 million capital raise at \$9.95. Investors in that offering ended up seeing nearly immediate losses after the pump campaign stopped.

Fraud at Vuzix. Expect delisting.

This report is the opinion of the author. It is not a recommendation for anyone anywhere to do anything at any time. Do your own research, form your own opinions. The author is not an investment advisor. The author is short VUZI. The author may conduct transactions on various securities mentioned in this report (or on securities of competitors of other comparable companies, securities etc.) within the next 72 hours.

1/27

PLEASE NOTE Subsequent to the publication of my report last Friday, Vuzix's head of IR Matt Margolis published a public response to shareholders on Twitter which can be found

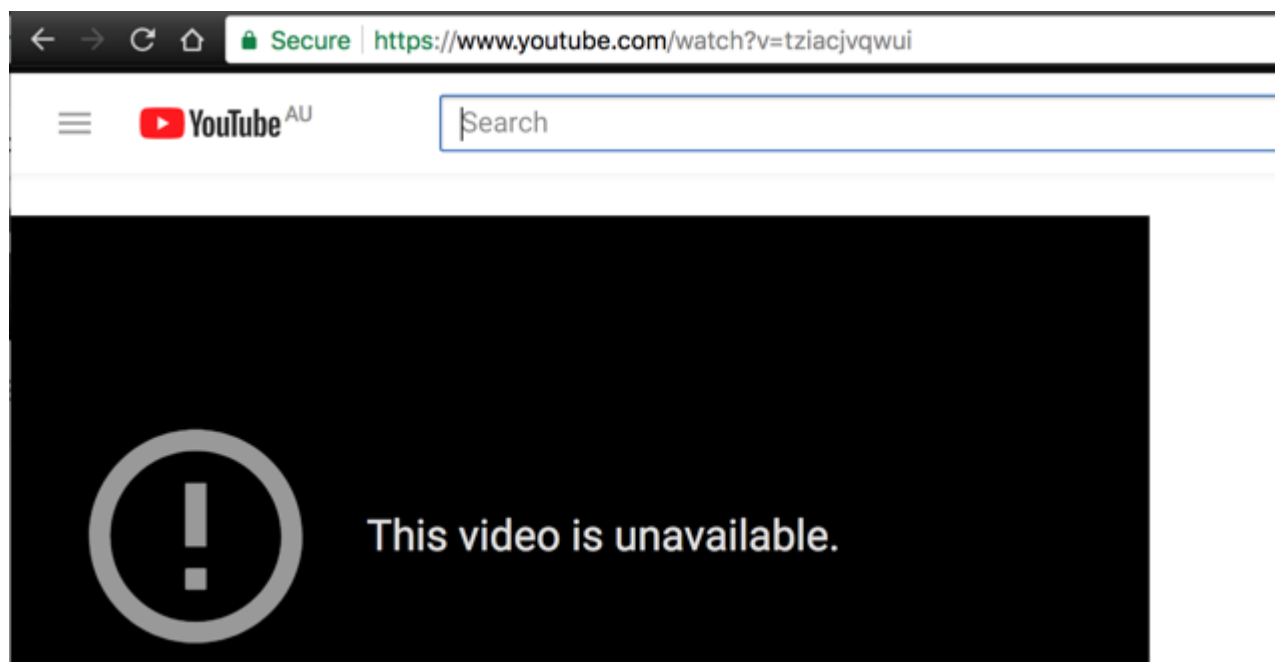
here: <https://seekingalpha.com/article/4157779-vuzix-far-worse-anyone-imagined>

Margolis' response was posted as in image, such that none of the links could be clicked. Here are two excerpts Please click the link above to read the entire response by Margolis

(Note: In my report below, you will see that the media outlets highlighted by Margolis above are the same ones named in the "brag book" from IRTH Communications which refers to their articles as "strategic media wins" which were sourced by IRTH. IRTH even refers to some of these "news" articles as "advertisements" that it sourced. Vuzix pays IRTH for these services.

Again, the response on Twitter from Margolis was posted as an image such that it is not possible to click on the links But by entering the text from the first YouTube video, we can see that this video is no longer available. The second video appears to be taken in someone's apartment, not at CES at all Anyone who wishes to believe that this was a valid demonstration of Vuzix's Alexa should feel free to do so. I leave my conclusions unchanged As a reminder, Tom's Guide is explicitly named by IRTH as one of the "strategic media wins sourced by IRTH".)

Here is the link referred to by Margolis.



(Editor's Note 3/20/2018: This article previously called Vuzix a reverse merger company. We have removed that description from the article. **Update 3/22/2018:** Vuzix representative Matt Margolis sent Seeking Alpha the following statement from Sherri Smith of Tom's Guide: "I can affirm that the video was indeed taken CES 2018 and our Senior Editor, Mike Prospero is in the video testing out the Vusix Blade AR Glasses with

March 17, 2018 at 4:27 PM

It's unfortunate that someone uses scare tactics and lies for personal gains.

If you need a "real independent opinion" on the Vuzix Blade from folks that don't have a personal financial benefit in our stock price going down you can read article after article here because this is what happened at CES:

<https://www.vuzix.com/News/InTheNews>

- Vuzix Blade, the world's first pair of Alexa-enabled smart glasses was successfully demoed at CES and MWC to thousands of industry and press professionals. These events resulted in very positive reviews from dozens of the leading media outlets, including the receipt of numerous "Best of Awards" from sources including CNET, TechRadar, Rolling Stone and TechCrunch.

techRadar, Rolling Stone and Tom's Guide and others.

See also:

Alexa running at CES with Paul Boris and Alex Kelly

<https://www.youtube.com/watch?v=tziACJVqwUI>

Alexa Running at CES with Tom's Guide

<https://www.youtube.com/watch?v=tziACJVqwUI>

Disclosure: I am/we are short VUZI. I wrote this article myself, and it expresses my own opinions. I am not receiving compensation for it. I have no business relationship with any company whose stock is mentioned in this article.

Additional disclosure: This report is the opinion of the author. The author is short VUZI. The author makes various trades in securities mentioned in this report (or other related companies or securities) within the next 72 hours.

EXHIBIT E

THE VERGE

HELP SUPPORT THE
NEWS YOU LOVE

*The Verge team relies on advertisers to give
you news, reviews, and videos for free.*

MOBILE TECH CES 2019 NEWS

Vuzix starts selling its AR smart glasses for \$1,000

One of the first consumer smart glasses to hit the market

By Nick Statt | @nickstatt | Jan 3, 2019, 6:00am EST



Photo by Nick Statt / The Verge

At CES, the consumer electronics industry's biggest annual trade show, scores of products tend to get hyped up and unveiled, only to disappear when it comes time to ship them or to show off a new version at next year's show. That does not appear to be the case for Vuzix, a Rochester, New York-based augmented reality and smart glasses company that says it's now [taking orders for its Blade AR glasses](#).

The device was unveiled in its most recent form — Vuzix has been [working on this technology for years, in various capacities](#) — at CES 2018. We [covered that device](#), a preproduction version of what will now ship to consumers, as a solid, though clearly first-generation version, of what [Google Glass once promised](#). The glasses essentially float a miniature display in the right lens of a pair of bulky sunglasses using what's known as waveguide technology, which is effectively the same type of display projection technique that's used in the [Magic Leap One headset](#). Companies tend to dress up the name; Magic Leap calls its waveguide package a “photonics” chip, while Vuzix refers to its own as the “Cobra Display Engine.”

However, as opposed to something like Magic Leap or Microsoft's HoloLens, both of which create virtual images that both interact with the real world and can be modified in real time by the user, the Blade is much more focused on being an accessory to a phone instead of a full-fledged and immersive AR device. It projects a semi-transparent and much smaller rectangular screen that's more of a heads-up display for mirroring phone notifications and running low-key apps. It is essentially doing what Google Glass once did, but with a higher-resolution, full-color display that has a more generous field of view. The whole package is also in a much more palatable design than Google's ill-fated wearable.

So how does it qualify as AR? Well, Vuzix and potential third-party app developers can decide to use the visual feed from the glasses to augment what

the user is seeing. Right now, there's no concrete AR taking place, but down the line, there certainly could be some features added like facial recognition or augmentation of the live camera feed for the device's existing photo and video capabilities. The company has also published some demos online that show off how it could be used to [run 3D simulation apps similar to those you'd see running on a Magic Leap One or HoloLens.](#)

Vuzix has been shipping developer units for the past 12 months, but now it says it has a consumer version ready for sale.

The price is steep at \$999.99. But the company says there's a number of new

benefits, including support for Google Assistant in addition to Amazon's Alexa. It's also working with some streaming video providers that it cannot disclose at the moment to bring on-demand video to the glasses, though long-term TV or movie viewing sessions on the device aren't likely going to be how one uses the Blade primarily. (*The Verge* has a pair of the consumer Blade glasses to try, and we plan on reviewing the gadget for later this month.)

**THE VUZIX BLADE IS LESS
HOLOLENS AND MORE
GOOGLE GLASS**

Vuzix imagines the glasses will work similar to a smartwatch by keeping you from pulling your phone out and getting lost in a sea of apps and social networks. We'll have to spend a bit more time with the device to see exactly how that theory works in practice.

EXHIBIT F

Tom's Guide / Tom's Hardware / Laptop Mag / TopTenReviews / AnandTech

Tom's Guide reviews products independently. When you click links to buy products we may earn money to support [our work](#).

[AUGMENTED REALITY](#) > REVIEW

Vuzix Blade Review: These \$1,000 AR Glasses Are Fun But Frustrating

by [MIKE PROSPERO](#) Feb 14, 2019, 6:00 AM



Imagine you're walking down the street in an unfamiliar city, trying to meet a friend for dinner at a restaurant. Fortunately, your augmented reality glasses point the way, displaying turn-by-turn directions, right in front of your eyes.



Your friend texts you, wondering where you are; the message appears before your eyes, and with a few taps on the glasses, you respond that you're a few blocks away. When you get to the restaurant, you glance at the awning, and its Yelp rating pops up. Unimpressed, you glance down the street; another, better-rated restaurant appears before your eyes, and you message your friend to join you there.

That's the promise of augmented reality glasses, one that the Vuzix Blade is looking to realize. These smart specs can be used to check messages, get directions, read karaoke lyrics and even use Alexa, all while keeping your smartphone in the Blade's pocket. But while they show a lot of promise, these glasses are definitely for early adopters willing to put up with a few inconveniences, as well as the Blade's \$1,000 price.

VUZIX BLADE SMART GLASSES

THE GOOD

- Alexa built-in
- Bright display

Limited app selection at present

- Bulky

VERDICT

The Vuzix Blade represents the next step for augmented reality glasses, but they're far from being a must-have.

2.5/5

MEH

\$999.99 >Vuzix

Design and Fit

Well, they're not [Google Glass](#), but the Vuzix Blade are no Warby Parkers, either. The frame of the Blades are made of thick black plastic, as are the arms, which are are about an inch thick at both the temple and behind where the glasses rest on your ears.



By comparison, the [Focals by North smart glasses](#), which also cost \$1,000 (*ed. update: Focals reduced the price to \$599*) look much more like traditional specs; while they're not exactly wire-frame, someone would have to take a much closer look to know that there's tech inside them.

Whether it was the weight or the fact that I was looking through a screen, I tired of

The Vuzix Blades I tested are the company's first-generation product; Vuzix plans to slim down the design over time, which is a good thing. Every time I donned the Blades, co-workers couldn't help but make snarky comments.

Whether it was the weight (3.4 ounces) or the fact that I was looking through a screen, I tired of wearing the glasses after a few minutes. I don't think I'd be able to wear them continually for an entire day.

The Tech Inside

The Blades project an image onto the right lens; a small, 720p/8-megapixel camera that lets you take photos and videos is embedded in the left side. Smartly, a red LED turns on when you're recording video or taking a photo. (Focals' glasses lack a camera of any kind.)



The right temple area of the Blades houses a touchpad, which you use to navigate through the device's menus. It's responsive, but it's hard to figure out by feel where I needed to tap for it to register a press. The Blades would be much better served by having some sort of tactile indicator, like a small ridge, which would let you know where to place your finger without looking. Apart from swiping and tapping, there are two-finger gestures used for

will take some time to remember all of them.



Apps are organized alphabetically; if you have a lot of them installed on the Blade and want to get to, say, Uber, you'll do a lot of swiping. There is a two-finger shortcut to jump to the front or end, but it would be nice if you could arrange the apps to your liking. Vuzix is also working on a way to launch apps by voice but hasn't set a time frame.



By comparison, the Focals smart glasses ship with a ring-like device called a Loop that has a small track point; you slip the Loop on your index finger and use the track point to navigate through menus, which is a little more intuitive than remembering a bunch of swipe gestures. Both methods are imperfect; having to swipe on your temple draws even more attention to the fact that you're wearing smart glasses (see [this SNL spoof](#)), and having to use a separate, easily lost gadget is just as problematic.

MORE: [Augmented Reality Glasses: What You Can Buy Now \(or Soon\)](#)

One thing missing from the Blades is a set of built-in speakers; you'll have to buy a set of Bluetooth earbuds to get audio. While you can't have everything, it would be amazing if one of these smart glasses companies partnered with [Bose and its incredible Frames sunglasses](#).

appears in front of your right eye, it's a simple green square with the time and date and shows up clearly in all but the brightest of lights. In the middle is an icon of a smartphone that shows how many notifications you have. This includes everything from text messages to missed calls, Facebook, Instagram and Twitter. When a notification arrives, the message appears in its entirety in the middle of the screen.



You can adjust both the position and the brightness of the projected image, as well as how long the display will remain on; by default, it will turn off after a few seconds. A tap on the touchpad brings the image back to life.

Alexa

"Alexa, what am I looking at?" No, we're not quite there yet, but the Blades have Amazon's voice assistant built in, so you can control smart home devices, check the weather and news, and more. Cleverly, if you ask for something visual, like the weather, the Blades will display a week's forecast for your location. I was able to look up the weather and play music on a Sonos One speaker; the Blades were fairly responsive, but on occasion, they were slightly slower than using an Echo Dot.



executing your command.

As mentioned earlier, if you don't have the Blades paired with a set of Bluetooth earbuds, you won't hear Alexa's reply.



To use Alexa, you have to first tap in to the app, then tap once more to put Alexa into listening mode. It would be nice if there were at least one fewer tap.

With Alexa built in, you can control smart home devices, check the weather and more without looking at your phone.

Vuzix is also planning to incorporate Google Assistant into the Blades but hasn't announced timing for that yet.

Messaging

When a message comes in to your smartphone, it briefly appears on the Blade's display before disappearing.

From within the Blade's interface, you can view all of your missed notifications, which can include everything from messages to the word of the day. You'll have to go to your

notifications in the Blade app itself.

Camera

At the moment, the small 720p/8MP camera in the Vuzix Blade can be used to take photos and video — a small red LED in the front of the glasses turns on when you're recording.



The quality of the photos and video taken by the Blade's camera were OK given its size, but not nearly as good as you'll find on a smartphone, even one a few generations old. I took a photo of my cat using both the Blade and an iPhone 6S; the former image was less detailed, and the device struggled more with moving subjects. My cat, who is not the most patient subject, was a bit blurry in the Blade's photos if he was moving.

However, just using the Blade's camera to snap pictures is a poor waste of its abilities. To show the potential of augmented reality, I tried a demo app on the Blades called EON AR Engine. After launching the app, I pointed the Blades at a photograph of an airplane engine, and a virtual model of the engine appeared, hovering over the picture. By tilting the actual photo, I could turn the virtual engine, looking at its various sides.

Apps needed

The Blades do run a version of Android, which should make it fairly easy for potential

apps are in the works. Even so, when I was testing the Blades, there were only 16 apps available, just slightly more than the 100 apps available for all Vuzix glasses combined (the M-Series and the M-100).



An Accuweather demo app displays the Earth; by moving my head, I could navigate to different parts of the globe. The demo only shows the weather for three cities: Las Vegas; Rochester, New York; and Smithfield, England.

A game called Dino Hunt projects a pre-Cambrian jungle with dinosaurs traipsing about; by swiveling your head around, you can move the gun sight around this world, target the dinos and tap the touchpad to fire.

Other apps include a bubble level, so you can see if something is straight or tilted, and a karaoke machine, which shows the lyrics as pre-loaded songs play.

If you have the Blades paired with an Android phone, you get a few more features than if you're using the glasses with an iPhone. For starters, you can download apps for the Blade right from your phone (via the Vuzix app); if you're on iOS, you have to select them on Vuzix's website.



Also, at the moment, you can get turn-by-turn directions only when the glasses are paired

show up as notifications on your screen.

However, you have to leave the notification screen on the entire time; I hope a more elegant solution is in the works.

In the promotional materials and the reviewers guide, Vuzix advertises Yelp and the Motiv health and fitness app, which, when paired with a heart rate monitor, will presumably show your fitness stats as you work out. However, the Blades would be the last thing I'd want to wear while out on a run.

Apps available for other Vuzix smart glasses include one for Parrot drones, iHeartRadio, Instagram, Pandora, MapMyRide and Spotify. Hopefully, they'll soon be available for the Blades, too.

As small as the app selection for the Blades is, the Focals look to have an even more limited (the company calls it "curated") experience: You'll get weather, turn-by-turn walking directions, Uber and Alexa.

Battery Life

The rechargeable battery inside the Blade should last for up to 8 hours, according to the company. While less than half the claimed battery life of the Focals, that should be enough to get you through a workday, but the battery will drain faster depending on what you're doing. For example, using Alexa actively for 6 minutes drained the battery by 6 percent, while a rousing 5-minute game of Dino Hunt took 11

14 percent of the Blade's battery in just 9 minutes.

Bottom Line

Are smart glasses the wearable of the future? AR glasses certainly have a lot of potential, and there could even come a time when we use them more than our smartphones. However, a number of things have to happen before we get to that point. For starters, the glasses will have to be something that people will actually want to wear, and they'll need to have more compelling features and apps.

I'm reasonably certain that Vuzix will make progress toward the above goals, but its first-generation Blade smart glasses are just that: a start. I found that their bulkiness makes them uncomfortable to wear for extended stretches of time, and, as of now, there just aren't enough apps to justify keeping them on your head.

Credit: Tom's Guide

QUICK TAKE

Consider the Vuzix Blade if you're really interested in augmented reality glasses, but be prepared to wait for apps that make the glasses a worthwhile investment.

\$999.99 >Vuzix

YOU'D ALSO LIKE

Microsoft HoloLens 2 Hands-On: A Mixed-Reality Headset Even I Can Love

Tom's Guide [↗](#)

Microsoft HoloLens 2 Rumor Roundup: Everything You Need to Know

Tom's Guide [↗](#)

You Can Finally Buy Vuzix's AR Glasses (For a Measly \$999)

Tom's Guide [↗](#)

Bose's Awesome AR Glasses Are Finally Up for Pre-Order

Tom's Guide [↗](#)

MIKE PROSPERO @mikeprospero

Michael A. Prospero is the senior editor at Tom's Guide overseeing the smart home, cameras/photography, drones, and fitness/wearables categories. When he's not testing out the latest running watch, skiing or training for a marathon, he's probably using the latest sous vide machine.

READ MORE

AUGMENTED REALITY WEARABLES

Add a comment

Ask a Category Expert

NO COMMENTS YET

COMMENT FROM THE FORUMS →

LATEST IN AUGMENTED REALITY

NEWS Huawei Patents AR Glasses to Work with Smartwatches

Huawei Patents AR Glasses to Work with Smartwatches

NEWS Samsung Patents Curved VR Display with 180-Degree Field of View

ROUND-UP Microsoft HoloLens 2 Rumor Roundup: Everything You Need to Know

NEWS HoloLens 2 Will Likely Launch Feb. 24: What

HANDS-ON Sennheiser Ambeo AR One Combines Real

NEWS

You Can Finally Buy Vuzix's AR Glasses (For a Measly \$999)

HOW-TO

Snapchat Unveils Lenses for Dogs - How to Use Them



EDITION

United States

▼

SUBSCRIBE TO OUR NEWSLETTER

Email Address

➔

COMPANY

- About Tom's Guide
- About Purch
- Advertising
- Licensing and Reprints

OTHER SHOPSAVVY SITES

- LaptopMag
- Tom's Hardware
- TopTenReviews
- Tom's Guide

RESOURCES

- Contact Us
- Privacy
- Copyright
- Terms Of Use